Date: November 30, 1998

SUBJECT: Results from Water Pollution Performance

Evaluation Study 40 (WP040)

FROM: Paul W. Britton, Statistician

National Water Quality Assurance Programs Branch

Ecological Exposure Research Division

TO: Quality Assurance Coordinators/Officers

Project Officers

Interested Laboratories

THRU: Raymond J. Wesselman, Chief

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WP040 has been completed by NERL-Cincinnati in its continuing evaluation of the performance of USEPA, state and other selected laboratories for 80 water pollution analytes (76 possible reported values). As you are all aware, this is the last WP study to be conducted directly by the USEPA.

Addressees that nominated a group of laboratories directly to NERL-Cincinnati will find:

- 1) a <u>single</u> copy of the performance evaluation report for each laboratory they nominated and related study information;
- a 3.5" diskette containing the study results as personal computer (PC) files that have been compressed using PKZIP, and directions regarding use of the diskette. Three "PK" commands have also been provided for your use on these files;
- 3) a printed list of the participating laboratories within their jurisdiction, including their assigned codes and identification of which specific addressee must distribute the report, etc., to EACH laboratory.

The diskette constitutes their file copy of the study results and the printed copy is for distribution to each of their participating laboratories (also see paragraph at the top of page 2 regarding which coordinator has the <u>primary</u> responsibility for distributing the report to each specific lab). As a study coordinator, it is also their responsibility to provide study results to any interested state or regional official within their jurisdiction that needs the information and is not listed as an addressee above. Study coordinators may distribute copies of any reports, files or other study information, as they consider necessary.

The results of WP040 are provided to the other addressees as individual laboratory reports with an explanation of the performance terms and relevant study summaries $\frac{1}{2}$

For each laboratory, the <u>Participant List</u> provided to each study coordinator shows all the coordinators that requested that laboratory's participation and identifies the coordinator with primary responsibility for informing the laboratory. If your region/state is the only requesting office, or if your region/state is listed after "samples thru" in the <u>Participant List</u>, it is your primary responsibility to provide that laboratory with a copy of their evaluation report. Every coordinator is responsible for seeing that any laboratory they requested receives any study summaries, true values, acceptance limits, etc., that the laboratory may request. Requestors for such study information reaching NERL-Cincinnati will be instructed to contact their study coordinator(s) for this information. Copies of the true values and limits, as well as this results memorandum and the summary for all participants, are available on the USEPA web site: http://www.epa.gov/ORD/dbases/PES.

We believe PKZIP provides an efficient and functional basis for our conversion to the distribution of computer study files for state and regional use. However, we continue to look for better approaches, so please do not hesitate to suggest anything you think might work better/easier. Also, as indicated in the instructions, if you require assistance, call (513) 569-7287 or (513) 569-7104.

Overall, 91.4 percent of all usable data were within acceptance limits and none of the 76 analyte/sample combinations evaluated had a failure rate over 20 percent.

Regarding high levels of false PCB identification in this study: the aroclor 1232 present in PCBs Sample 1 was falsely identified as 1016/1242 by 21.4 percent, and as 1248, 1254 or 1260 by another 2.1 percent, of all labs reporting PCB data. Such false identification rates are fairly typical of previous WP studies whenever the sample contained 1232.

For each "NOT ACCEPT." received, a participating laboratory should determine the cause(s) and make any procedural changes necessary to improve future data quality.

Regarding the procedure that we have established for formal correction of errors made by our data entry contractor, laboratories are responsible for reporting any data entry errors in their report which were made by our data entry contractor. These errors must be reported to us as soon as possible, however, we will accept errors reported to us within four (4) months from the date on this memorandum. If confirmed in our records, errors received before the four-month deadline will be corrected in our study file and report pages will be corrected and reissued to the laboratory and the coordinators that nominated that laboratory. After the four months, PC disks containing the corrected final study results will be distributed to each coordinator.

If you have questions or comments, I can be contacted at (513) 569-7216.